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PTO/ISA/084/07-057 10389599 GAU: 3753

(SUBSTITUTE FOR FORM 1449A/PTO) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICATION NUMBER	10/589599
	FILING DATE	August 16, 2006
	FIRST NAMED INVENTOR	EDWARD NELSON FULLER
	ART UNIT	TBA
	EXAMINER NAME	TBA
ATTORNEY DOCKET NUMBER		1-24872

SHEET 1 OF 5

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	CITE No. ¹	DOCUMENT NUMBER	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICATE OF CITED DOCUMENT	PAGES, COLUMNS, LINES WHERE RELEVANT PASSAGES OR RELEVANT FIGURES APPEAR
		NUMBER-KIND CODE ² (IF KNOWN)			
		0,886,045	04-28-1908	EHRlich ET AL.	
		1,886,205	11-01-1932	LYFORD	
		1,926,031	09-12-1933	BOYNTON	
		2,412,205	12-10-1946	COOK	
		2,504,055	04-11-1950	THOMAS	
		2,840,107	06-24-1958	CAMPBELL	
		2,875,779	03-03-1959	CAMPBELL	
		3,031,747	05-01-1962	GREEN	
		3,729,807	05-01-1973	FUJIWARA	
		3,747,628	07-24-1973	HOLSTER ET AL.	
		3,860,949	01-14-1975	STOECKERT ET AL.	
		4,005,454	01-25-1977	FROLOFF ET AL.	
		4,019,388	04-26-1977	HALL, II ET AL.	
		4,023,725	05-17-1977	IVETT ET AL.	
		4,152,540	05-01-1979	DUNCAN ET AL.	
		4,181,249	01-01-1980	PETERSON ET AL.	
		4,298,023	11-03-1981	MCGINNIS	
		4,341,816	07-27-1982	LAUTERBACH ET AL.	
		4,434,813	03-06-1984	MON	
		4,581,624	04-08-1986	O'CONNOR	
		4,628,576	12-16-1986	GIACHINO ET AL.	
		4,647,013	03-03-1987	GIACHINO ET AL.	
		4,661,835	04-28-1987	GADEMANN ET AL.	
		4,772,935	09-20-1988	LAWLER ET AL.	
		4,821,997	04-18-1989	ZDEBLICK	
		4,824,073	04-25-1989	ZDEBLICK	
		4,826,131	05-02-1989	MIKKOR	
		4,828,184	05-09-1989	GARDNER ET AL.	
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		4,938,742	07-03-1990	SMITS	
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		5,037,778	08-06-1991	STARK ET AL.	
		5,050,838	09-24-1991	BEATTY ET AL.	
		5,054,522	10-08-1991	KOWANZ ET AL.	

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DATE CONSIDERED

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	ART UNIT	TBA
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	EXAMINER NAME	TBA
	ATTORNEY DOCKET NUMBER	1-24872
SHEET 2 OF 5		

U.S. PATENT DOCUMENTS

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		NUMBER-KIND CODE 2 (IF KNOWN)			
		5,058,856	10-22-1991	GORDON ET AL.	
		5,061,914	10-29-1991	BUSCH ET AL.	
		5,064,165	11-12-1991	JERMAN	
		5,065,978	11-19-1991	ALBARD ET AL.	
		5,066,533	11-19-1991	AMERICA ET AL.	
		5,069,419	12-03-1991	JERMAN	
		5,074,629	12-24-1991	ZDEBLICK	
		5,082,242	01-21-1992	BONNE ET AL.	
		5,096,643	03-17-1992	KOWANZ ET AL.	
		5,116,457	05-26-1992	JERMAN	
		5,131,729	07-21-1992	WETZEL	
		5,133,379	07-28-1992	JACOBSEN ET AL.	
		5,142,781	09-01-1992	METTNER ET AL.	
		5,161,774	11-10-1992	ENGELSDORF ET AL.	
		5,169,472	12-08-1992	GOEBEL	
		5,176,358	01-05-1993	BONNE ET AL.	
		5,177,579	01-05-1993	JERMAN	
		5,178,190	01-12-1993	METTNER	
		5,179,499	01-12-1993	MACDONALD ET AL.	
		5,180,623	01-19-1993	OHNSTEIN	
		5,197,517	03-30-1993	PERERA	
		5,209,118	05-11-1993	JERMAN	
		5,215,244	06-01-1993	BUCHHOLZ ET AL.	
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		5,217,283	06-08-1993	WATANABE	
		5,238,223	08-24-1993	METTNER ET AL.	
		5,244,537	09-14-1993	OHNSTEIN	
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		5,271,431	12-21-1993	METTNER ET AL.	
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		5,355,712	10-18-1994	PETERSEN ET AL.	
		5,368,704	11-29-1994	MADOU ET AL.	
		5,375,919	12-27-1994	FURUHASHI	

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PTO/SH-80599 - GAU-3753

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	FILING DATE	August 16, 2006	
	FIRST NAMED INVENTOR	EDWARD NELSON FULLER	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT		ATTORNEY DOCKET NUMBER	1-24872
SHEET 3 OF 5			

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		NUMBER-KIND CODE ² (IF KNOWN)			
		5,400,824	03-28-1995	GSCHWENDTNER ET AL.	
		5,417,235	05-23-1995	WISE ET AL.	
		5,445,185	08-29-1995	WATANABE ET AL.	
		5,458,405	10-17-1995	WATANABE	
		5,553,790	09-10-1996	FINDLER ET AL.	
		5,566,703	10-22-1996	WATANABE ET AL.	
		5,577,533	11-26-1996	COOK, JR.	
		5,611,214	03-18-1997	WEGENG ET AL.	
		5,785,295	07-28-1998	TSAI	
		5,810,325	09-22-1998	CARR	
		5,838,351	11-17-1998	WEBER	
		5,848,605	12-15-1998	BAILEY ET AL.	
		5,873,385	02-23-1999	BLOOM ET AL.	
		5,909,078	06-01-1999	WOOD ET AL.	
		5,926,955	07-27-1999	KOBER	
		5,941,608	08-24-1999	CAMPAU ET AL.	
		5,954,079	09-21-1999	BARTH ET AL.	
		5,955,817	09-21-1999	DHULER ET AL.	
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		6,019,437	02-01-2000	BARRON ET AL.	
		6,023,121	02-08-2000	DHULER ET AL.	
		6,038,928	03-21-2000	MALUF ET AL.	
		6,105,737	08-22-2000	WEIGERT ET AL.	
		6,114,794	09-05-2000	DHULER ET AL.	
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		6,279,606	08-28-2001	HUNNICUTT ET AL.	
		6,390,782	05-21-2002	BOOTH ET AL.	
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		6,505,811	01-14-2003	BARRON ET AL.	
		6,523,560	02-25-2003	WILLIAMS ET AL.	
		6,533,366	03-18-2003	BARRON ET AL.	
		6,540,203	04-01-2003	HUNNICUTT	
		6,581,640	06-24-2003	BARRON	
		6,637,722	10-28-2003	HUNNICUTT	
		6,761,420	07-13-2004	MALUF ET AL.	
		6,845,962	01-25-2005	BARRON ET AL.	

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		NUMBER-KIND CODE ² (IF KNOWN)			
		2002/0174891	11-28-2002	MALUF ET AL.	
		2003/0092526	05-15-2003	HUNNICUTT ET AL.	
		2003/0098612	05-29-2003	MALUF ET AL.	
		2006/0218953	10-05-2006	HIROTA	

FOREIGN PATENT DOCUMENTS

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		COUNTRY CODE NUMBER KIND CODE			
		DE2215526	10-04-1973	LICENTIA GMBH	
		DE2930779	02-07-1980	TOKYO SHIBAURA ELECTRIC CO	
		DE3401404	07-25-1985	BOSCH GMBH ROBERT (DE)	
		DE4101575	07-23-1992	BOSCH GMBH ROBERT (DE)	
		DE4417251	11-23-1995	BOSCH GMBH ROBERT (DE)	
		DE4422942	01-04-1996	BOSCH GMBH ROBERT (DE)	
		EP250948	01-07-1988	FRAUNHOFER GES FORSCHUNG (DE)	
		EP261972	03-30-1988	UNIV LELAND STANFORD JUNIOR (US)	
		GB2238267	05-29-1991	STC PLC (GB)	
		WO00/14415	03-16-2000	LUCAS NOVASENSOR (US) et al.	
		WO99/16096	04-01-1999	MCNC et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

SHEET 5 OF 5

Examiner
Initials*Cite
No.¹

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

"A Silicon Microvalve For The Proportional Control Of Fluids" by K.R. Williams, N.I. Maluf, E.N. Fuller, R.J. Barron, D.P. Jaeggi, and B.P. van Drieënhuizen, TRANSDUCERS '99, Proc. 10th International Conference on Solid State Sensors and Actuators, held June 7-10, 1999, Sendai, JAPAN, pp. 18-21.

"Process for in-plane and out-of-plane single-crystal-silicon thermal microactuators"; J. Mark Noworolski, et al.; *Sensors and Actuators A* 55 (1996); pp. 65-69.

Ayón et al., "Etching Characteristics and Profile Control in a Time Multiplexed ICP Etcher," Proc. Of Solid State Sensor and Actuator Workshop Technical Digest, Hilton Head SC, (June 1998) 41-44.

Bartha et al., "Low Temperature Etching of Si in High Density Plasma Using SF₆/O₂," *Microelectronic Engineering*, Elsevier Science B.V., vol. 27, (1995) 453-456.

Fung et al., "Deep Etching of Silicon Using Plasma" Proc. Of the Workshop on Micromachining and Micropackaging of Transducers, (Nov. 7-8, 1984) pp. 159-164.

IEEE Technical Digest entitled "Compliant Electro-thermal Microactuators", J. Jonsmann, O. Sigmund, S. Bouwstra, Twelfth IEEE International Conference on Micro Electro Mechanical Systems held January 17-21, 1999, Orlando, Florida, pp. 588 - 593, IEEE Catalog Number: 99CH36291C.

Klaassen et al., "Silicon Fusion Bonding and Deep Reactive Ion Etching; A New Technology for Microstructures." Proc. Transducers 95 Stockholm Sweden, (1995) 556-559.

Linder et al., "Deep Dry Etching Techniques as a New IC Compatible Tool for Silicon Micromachining," *Proc., Transducers*, vol. 91, (Jun. 1991) pp. 524-527.

Petersen et al. "Surfaced Micromachined Structures Fabricated with Silicon Fusion Bonding" Proc., Transducers 91, (Jun. 1992) pp. 397-399.

Yunkin et al., "Highly Anisotropic Selective Reactive Ion Etching of Deep Trenches in Silicon," *Microelectronic Engineering*, Elsevier Science B.V., vol. 23, (1994) pp. 373-376.

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